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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/726,677 | 11/29/2000 | Matti Halme | BER-017 | 2037 |

7590 02/25/2004
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| EXAMINER |
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JUNTIMA, NITTAYA

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 2663 | 9 |

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/726,677

Applicant(s)

HALME, MATTI

Examiner

Nittaya Juntima

Art Unit

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 November 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3 and 6.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because items A, A1-A3, PA1-PA2, 10, PB1-PB2, B1-B5, and B in Figs. 1-3 should be properly labeled as Internal networks, VPN nodes, and Internet Service Providers as disclosed on pages 3-4 of the specification. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The abstract of the disclosure is objected to because "Figure 3" should be deleted. Correction is required. See MPEP § 608.01(b).

Claim Objections

3. Claims 1-3, 5, and 6 are objected to because of the following informalities:

- in claim 1, line 4, a colon should be added after "of;"
lines 6 and 8, a comma should be replaced with a semicolon; and
- in claim 3, line 1, "the" should be changed to "an" and "of" should be added after "amount;"
- in claim 5, line 1, "from" after "packets" should be deleted;
line 4, a colon should be added after "least;" and
lines 7 and 10, a comma should be replaced with a semicolon; and

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- in claim 6, line 4, a colon should be added after “least,” and
lines 7 and 10, a comma should be replaced with a semicolon.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 1-6** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the limitation “in which method said selections are performed at the source network site, and which selections are made...” in lines 9-10 of the claim is vague and indefinite. It cannot be determined from the claim language as to which selections the claim is referring; the steps of selecting in the claim body or selection of a route in the preamble? Therefore, the claim is vague and indefinite. The office is treating this claim limitation as “in which said steps of selecting are performed at the source network site, and which said steps of selecting are made....”

In claim 2, the limitations “said selections” in line 1 and “the selection of routes” in line 2 of the claim are vague and indefinite. It cannot be determined from the claim language as to what selections and what routes the claim is referring. Therefore, the claim is vague and indefinite. The office is treating these claim limitations as “said steps of selecting” and “the selection of a route,” respectively.

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In claims 5 and 6, the limitation “which selections” in line 11 of the claim is vague and indefinite. It cannot be determined from the claim language as to which selections the claim is referring; the selection of the first and second connections or selection of something else? Therefore, the claim is vague and indefinite. The office is treating this claim limitation as “which selections of said connections.”

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Bellovin et al. (USPN 5,870,557).

Per **claim 1**, as shown in Fig. 2, Bellovin et al. teach ***a source network site*** (202), ***a destination network site*** (Web site 210), ***a network*** (Internet 203), ***a plurality of network service provider connections*** (connections connecting APs 202A and 202B, nodes A-G, and website 210), ***a first network service provider connection*** (connection between AP 202B and node G), ***a set of network service provider connections connecting the source network site to the network*** (a connection between AP 202A and node A and a connection between AP 202B and node G; both connections connecting Internet Access Provider 202 to the Internet 203), ***a second network service provider connection*** (not defined, reads on a connection connecting nodes G, F, and D), ***a set of network service provider connections connecting the destination network site to the***

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network (a connection connecting nodes G, F, and D, and a connection connecting nodes A, C, and D), *a round trip time value for each combination of source and destination network service provider connections* (round trip times for each combination of source and destination connections, col. 5, lines 63-col. 6, lines 1-15), and *a packet success rate value for each combination of source and destination network service provider connections* (packet lost over the hops for each combination of source and destination connections, col. 5, lines 63-col. 6, lines 1-15), *selecting, at the source network site, a first network service provider connection and selecting a second network service provider connection based on a round trip time value and a packet success rate value* (the Internet access provider 202 selects a connection connecting AP 202B to node G and a connection connecting nodes G, F, and D as a route for transmission because of its low congestion, i.e. round trip delay and packets lost over the hops, col. 5, lines 63-66 and col. 6, lines 42-60).

Per **claim 2**, Bellovin et al. teach that the steps of selecting are performed on the time elapsed after the selection of a route was previously changed (the time elapsed reads on time T2, col. 3, lines 18-38).

Per **claim 3**, Bellovin et al. teach that the selections of node links and hops generally remain stable for a few minutes (col. 3, lines 28-32). Therefore, it is inherent that an amount of change in the packet success rate and/or round trip time of a connection required to cause a change in the route selection must reduce as a function of time during these few minutes.

Claim 5 is a network node (Internet Access Provider 202 in Fig. 2) claim without performing the selections at the source network site corresponding to method claim 1, and is therefore rejected for the same reason set forth in the rejection of claim 1.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bellovin et al. (USPN 5,870,557).

Claim 6 is a computer software product without performing the selections at the source network site corresponding to method claim 1, and is rejected under the same reason set forth in the rejection of claim 1, with an addition that Bellovin et al. do not teach a computer software product and the computer software code means as recited in the claim. However, it would have been obvious to one skilled in the art to include the computer software code means into the computer software product as recited in claim 6 for automatic execution and portability purposes.

Allowable Subject Matter

7. Claim 4 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

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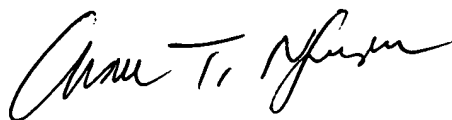
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nittaya Juntima whose telephone number is 703-306-4821. The examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 703-308-5340. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nittaya Juntima
February 20, 2004

NS



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